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EXAMINER				
CHANG, ERIC				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

09/746,205

Applicant(s)

BRABENAC, CHARLES L.

Examiner

ERIC CHANG

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 39-57 are pending.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 39-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,305 to McKaughan et al., in view of U.S. Patent 5,727,149 to Hirata et al.
4. As to claim 39, McKaughan discloses a method of filtering packets from a network, the method comprising: receiving a packet at a network adapter, the network adapter associated with a host computer in a power-managed state [col. 4, lines 29-56]; comparing a destination address of the received packet to an address of the host computer using a pattern filter of the network adapter to determine if the received packet is addressed to the host computer [col. 4, lines 44-51]; when the received packet is not addressed to the host computer, discarding the received packet [col. 4, lines 44-51]; and when the received packet is addressed to the host computer and the port identifier matches the port number, sending a wake-up message from the port filter to the host computer [col. 4, lines 44-51].

McKaughan also teaches waking the host computer if an incoming packet meets filtering protocols [col. 8, lines 45-67], such as packets that are addressed to network protocol applications running on the host computer [col. 7, lines 10-53]. McKaughan teaches the

limitations of the claim, but does not specifically teach that the filtering protocols comprise comparing a port identifier of the received packet to a port number assigned to an application executing on the host computer using a port filter of the network adapter.

Hirata teaches that packets are examined to determine if they should be processed by a host computer [col. 3, lines 54-58]. Thus, Hirata teaches a packet filtering means similar to that of McKaughan. Hirata further teaches when the received packet is addressed to the host computer, comparing a port identifier of the received packet to a port number assigned to an application executing on the host computer using a port filter of the network adapter [col. 8, lines 27-35, and col. 11, lines 39-51]; when the received packet is addressed to the host computer and the port identifier does not match the port number, discarding the received packet using the port filter [col. 8, lines 27-35].

At the time that the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the port identifier means as taught by Hirata. One of ordinary skill in the art would have been motivated to do so that the host computer can determine if the packet is directed to one of the applications executing on the host computer.

It would have been obvious to one of ordinary skill in the art to combine the teachings of the cited references because they are both directed to the problem of determining if a packet is addressed to a host computer. Moreover, the port identifier means taught by Hirata would improve the efficiency of McKaughan because it allowed packets that were not directed to one of the applications executing on the host computer to be discarded without unduly waking the host computer.

5. As to claim 40, McKaughan discloses the wake-up message causes the host computer to transition from the power-managed state to an operational state [col. 8, lines 59-64, and col. 9, lines 41-47].
6. As to claim 41, Hirata discloses receiving program information from the host computer, the program information is associated with a port in use by a particular process running on the host computer [col. 11, lines 39-51]; and automatically configuring the port filter to filter packets based on the received program information [col. 8, lines 27-35].
7. As to claim 42, Hirata discloses the program information comprises the port number [col. 8, lines 27-35].
8. As to claim 43, Hirata discloses receiving, at the port filter, program information from the host computer, the program information associated with a port in use by a particular process running on the host computer [col. 11, lines 39-51]; loading executable instructions from the received program information using the port filter and processing the executable instructions using a processor of the port filter to configure the port filter to filter packets [col. 8, lines 27-35].
9. As to claim 44, Hirata discloses determining a protocol identifier associated with the received packet using the packet filter [col. 9, lines 20-41].

10. As to claim 45, McKaughan discloses a computer-readable medium embodying instructions that, when executed by a processor, cause a network adapter to perform a method comprising: receiving a packet at a port filter of the network adapter of a host system in a power-managed state [col. 4, lines 29-56]; when the packet is not addressed to the host system, discarding the packet [col. 4, lines 44-51]; and when the packet meets filtering protocols [col. 8, lines 45-67], sending a wake-up message from the port filter to the host computer [col. 4, lines 44-51]. Hirata further teaches a filtering protocol comprising comparing a port identifier of the received packet to a port number assigned to an application executing on the host computer using a port filter of the network adapter [col. 8, lines 27-35, and col. 11, lines 39-51]; when the port identifier does not match a port number of the one or more port numbers, discarding the packet using the port filter [col. 8, lines 27-35].

11. As to claim 46, McKaughan discloses the packet is discarded by the port filter without notifying the host system [col. 4, lines 44-51]. Hirata also discloses the packet is discarded by the port filter without notifying the host system [col. 8, lines 27-35].

12. As to claim 47, Hirata discloses identifying the port identifier within the received packet [col. 8, lines 27-35]; and comparing the identified port number to the one or more port numbers to identify a match [col. 9, lines 52-67].

13. As to claim 48, Hirata discloses before receiving the packet at the port filter, receiving program information from the host computer [col. 9, lines 52-67].

14. As to claim 49, Hirata discloses the program information includes criteria associated with processes running on the host computer [col. 11, lines 39-51].

15. As to claim 50, Hirata discloses comparing the port identifier to the criteria specified in the program information to identify matches [col. 8, lines 27-35, and col. 11, lines 39-51].

16. As to claim 51, Hirata discloses storing the program information in a memory of the port filter [col. 9, lines 52-67].

17. As to claim 52, McKaughan discloses a network adapter associated with a host computer to filter packets received from the network, the network adapter comprising: a networking device coupled to a network to send and receive packets of information to and from the network [FIG. 1]; a pattern filter coupled to the networking device and configured to interrogate packets of information received from the network to determine whether each packet is addressed to the host computer [col. 4, lines 44-51], the pattern filter to discard or re-direct packets that are not addressed to the host computer without waking the host computer from a power-managed state [col. 4, lines 44-51]. Hirata further teaches a port filter coupled to the pattern filter to receive packets directed to the host computer, the port filter to determine whether each directed packet includes a port identifier that matches a port number associated with a process running on the host computer [col. 8, lines 27-35, and col. 11, lines 39-51], the port filter to discard directed packets when there is no match [col. 8, lines 27-35]. McKaughan further teaches the port filter

to send a wake-up signal to the host computer only when the packet is addressed to the host computer [col. 4, lines 44-51], and when additional filtering protocols have been met [col. 8, lines 45-67], such as the port identifier matches the port number as taught by Hirata.

18. As to claim 53, McKaughan discloses the wake-up signal is configured to cause the host computer to transition from the power-managed state to an operational state to process the packet [col. 4, lines 44-51].

19. As to claim 54, Hirata discloses the port filter is configured to forward directed packets addressed to the host computer and including the port identifier that matches the port number to the host computer for processing [col. 11, lines 39-51].

20. As to claim 55, McKaughan discloses the host computer includes the networking device, the pattern filter, and the port filter, and wherein the wake-up signal is sent from the port filter to a processor of the host computer [col. 4, lines 44-51].

21. As to claim 56, Hirata discloses the port filter is configured to receive program information from the host computer and to filter packets based on the received program information [col. 9, lines 52-67].

22. As to claim 57, Hirata discloses the program information includes instructions executable by the port filter to filter packets [col. 8, lines 27-35].

Response to Arguments

23. Applicant's arguments filed December 30, 2009 have been fully considered but they are not persuasive.

24. In the remarks, applicants argued in substance that Hirata only teaches or suggests discarding unnecessary data to allow a computer to run at full speed in a processing operation without interruptions [col. 11, lines 58-61], not to save power. But Hirata teaches the network apparatus has a function of filtering received data, thereby relaying only the data received from the network transmission line which the computer needs and discarding unnecessary data [col. 3, lines 54-58]. That it also allows a computer to run at full speed in a processing operation without interruptions is a benefit of said function, but not the only purpose of the teachings of Hirata. Hirata specifically teaches that the host computer can determine if the packet is directed to one of the applications executing on the host computer. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of McKaughan and Hirata because they are both directed to the problem of determining if a packet is addressed to a host computer.

25. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, although Hirata does not

teach waking or not waking the host computer, the combination of McKaughan and Hirata teach waking or not waking the host computer based on the result of the port filter.

26. In response to applicant's argument that the port filter of Hirata is applicable only to prevent a wasteful interruption of computing by discarding packets with port identifiers not matching the port number, and not applicable to waking up a host computer, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

27. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

28. In this case, McKaughan teaches waking the host computer if an incoming packet meets filtering protocols [col. 8, lines 45-67], such as packets that are addressed to network protocol applications running on the host computer [col. 7, lines 10-53]. Hirata teaches that packets are

examined to determine if they should be processed by a host computer [col. 3, lines 54-58].

Thus, Hirata teaches a packet filtering means similar to that of McKaughan. Hirata further teaches that the host computer can determine if the packet is directed to one of the applications executing on the host computer, by means of comparing the packet port identifier with a port number [col. 8, lines 27-35, and col. 11, lines 39-51]. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of McKaughan and Hirata because they are both directed to the problem of determining if a packet is addressed to a host computer.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC CHANG whose telephone number is (571)272-3671. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Chang/
Examiner, Art Unit 2116

/Thomas Lee/

Supervisory Patent Examiner, Art Unit 2115